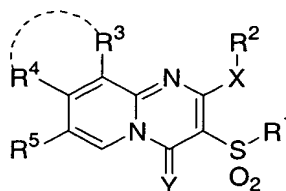


What is claimed is:

1. A compound of Formula I or a nontoxic pharmaceutically acceptable salt or solvate thereof,



I

wherein:

R¹ is naphthyl or phenyl, said phenyl optionally substituted with one to three substituents each independently selected from the group consisting of halogen, C₁₋₄ alkyl, and trifluoromethoxy;

R² is 5-methylpyridin-2-yl or C₁₋₄ alkyl, said C₁₋₄ alkyl optionally substituted with hydroxy;

R³ is hydrogen, halogen, C₁₋₄ alkyl, or benzyloxy;

R⁴ is hydrogen or C₁₋₄ alkyl;

the dashed line, taken with R³ and R⁴ together, optionally forms a 5 to 6 member aromatic ring structure having zero to 2 heteroatoms;

R⁵ is hydrogen, halogen, C₁₋₄ alkyl, benzyl, or C(O)R⁸;

X is NR⁶, O, or S(O)_m;

Y is NR⁷ or O;

m is 0, 1 or 2;

R⁶ is hydrogen or C₁₋₄ alkyl;

R⁷ is hydrogen, C₁₋₄ alkyl, or C(O)C₁₋₄alkyl; and

R⁸ is C₁₋₄ alkoxy, amino, (C₁₋₄ alkyl)amino, di(C₁₋₄ alkyl)amino, or hydroxy.

2. The compound of claim 1 wherein X is S; and Y is NR⁷.

3. The compound of claim 1 wherein X and Y are NH.

4. The compound of claim 1 wherein X is O; and Y is NH.
5. The compound of claim 1 wherein X is SO; and Y is NH.
- 5 6. The compound of claim 1 wherein X is S; and Y is O.
7. The compound of claim 1 selected from the group consisting of:
N-(3-benzenesulfonyl-4-imino-4H-pyrido[1,2-a]pyrimidin-2-yl)methylamine;
3-benzenesulfonyl-7-methyl-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-
10 ylideneamine;
N-(3-benzenesulfonyl-4-imino-4H-pyrido[1,2-a]pyrimidin-2-yl)ethylamine;
3-benzenesulfonyl-2-ethoxy-pyrido[1,2-a]pyrimidin-4-ylideneamine;
3-benzenesulfonyl-7-bromo-9-methyl-2-methylsulfanyl-pyrido[1,2-a]
pyrimidin-4-ylideneamine;
15 3-benzenesulfonyl-9-bromo-7-methyl-2-methylsulfanyl-pyrido[1,2-a]
pyrimidin-4-ylideneamine;
3-(3,4-dichloro-benzenesulfonyl)-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-
4-ylideneamine;
N-(3-benzenesulfonyl-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-
20 ylidene)methylamine;
3-(2-chloro-benzenesulfonyl)-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-
ylideneamine;
3-benzenesulfonyl-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-
ylideneamine;
25 3-(4-fluoro-benzenesulfonyl)-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-
ylideneamine;
2-(3-benzenesulfonyl-4-imino-4H-pyrido[1,2-a]pyrimidin-2-
ylamino)ethanol;
3-benzenesulfonyl-2-methanesulfinyl-pyrido[1,2-a]pyrimidin-4-
30 ylideneamine;
3-benzenesulfonyl-7-chloro-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-
ylideneamine;

- 3-(4-chloro-benzenesulfonyl)-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-ylideneamine;
- 3-benzenesulfonyl-7-fluoro-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-ylideneamine;
- 5 3-benzenesulfonyl-9-methyl-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-ylideneamine;
- 3-benzenesulfonyl-9-benzyloxy-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-ylideneamine;
- 3-benzenesulfonyl-8-methyl-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-ylideneamine;
- 10 3-benzenesulfonyl-7-bromo-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-ylideneamine;
- 2-methylsulfanyl-3-(4-trifluoromethoxy-benzenesulfonyl)-pyrido[1,2-a]pyrimidin-4-ylideneamine;
- 15 3-benzenesulfonyl-4-imino-2-methylsulfanyl-4H-pyrido[1,2-a]pyrimidine-7-carboxylic acid methyl ester;
- 3-benzenesulfonyl-2-methylsulfanyl-pyrimido[2,1-a]isoquinolin-4-ylideneamine;
- 3-(4-chloro-2,5-dimethyl-benzenesulfonyl)-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-ylideneamine;
- 20 3-benzenesulfonyl-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-one;
- 7-benzenesulfonyl-6-methylsulfanyl-4,5,8a-triaza-phenanthren-8-ylideneamine;
- 2-methylsulfanyl-3-(naphthalene-2-sulfonyl)-pyrido[1,2-a]pyrimidin-4-ylideneamine;
- 25 3-benzenesulfonyl-7-benzyl-9-methyl-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-ylideneamine;
- (3-benzenesulfonyl-4-imino-7-methyl-4H-pyrido[1,2-a]pyrimidin-2-yl)-(5-methyl-pyridin-2-yl)amine;
- 30 3-(4-*tert*-butyl-benzenesulfonyl)-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-ylideneamine;
- 3-benzenesulfonyl-2-methylsulfanyl-8-propyl-pyrido[1,2-a]pyrimidin-4-ylideneamine;

N-(3-benzenesulfonyl-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-ylidene)acetamide;

3-benzenesulfonyl-4-imino-2-methylsulfanyl-4H-pyrido[1,2-a]pyrimidine-7-carboxylic acid amide; and

- 5 3-benzenesulfonyl-8-ethyl-2-methylsulfanyl-pyrido[1,2-a]pyrimidin-4-ylideneamine; or a nontoxic pharmaceutically acceptable salt thereof.

8. A method of treating a disorder responsive to antagonism of the 5-HT₆ receptor, in a mammal in need of such treatment, comprising
10 administering to the mammal a therapeutically effective amount of a compound as defined in claim 1.

9. The method of claim 8 wherein said disorder is psychoses, depression, neurological disorders, memory disorders, cognition
15 enhancement, Parkinson's disease, and Alzheimer's disease.

10. A pharmaceutical composition for treating a disorder responsive to antagonism of the 5-HT₆ receptor comprising a therapeutically effective amount of a compound as defined in claim 1 and a pharmaceutically
20 acceptable carrier, adjuvant or diluent.